For development of the hydrodynamic model, the bay was represented by a finite element mesh consisting of three-dimensional (e.g., rectangular, triangular) and two-dimensional elements. The grid covers the entire bay from the entrance at Golden Gate Bridge and both the south and northern branches of the bay.

The model was forced by tidal elevation at the open boundary at the Golden Gate Bridge and river and freshwater flows from the Sacramento and San Joaquin Rivers. The resulting hydrodynamic output incorporates a net outflow longterm condition.

Wind

Wind data used in the model simulation was based on a regional statistical wind summary. Wind speed and direction time series for the Summer (July - August) and Winter (December - February) were created from summary data taken from the International Station Meteorological Climate Summary (NCDC, 1992) for the nearest recording site. Conditions were modified from the historical data from the Port Chicago meteorological station, located along the south shore of Suisun Bay, over the period of January 1995 to December 1996.

This wind data was compiled into monthly speed and direction probability tables. The tables are monthly statistical summaries of the probability of wind coming from a particular direction and within a range of speeds. The monthly data records generated are essentially a synthetic time series based on wind probabilities for the selected period.

3.4.5   Trajectory Results

Figure	Description
3-1.	Spill Time Contour Map - Summer Conditions
3-2.	Spill Time Contour Map - Winter Conditions
3-3.	Probability of Water Surface Oiling Map- Summer Conditions
3-4.	Probability of Water Surface Oiling Map- Winter Conditions

The modeling period was a maximum of 72 hours. The time required the oil to reach the shoreline is determined by the tide stage and the speed, direction of the wind, and the amount of material loss to evaporation.